Effect of trauma-focused cognitive behavior therapy on depression and the quality of life of the elderly in Indonesia

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Abstract

Purpose – *This study aimed to analyze the effect of Trauma-Focused Cognitive Behavior Therapy (TF-CBT) on the depression level and quality of life of the elderly in an earthquake-affected district of North Lombok Regency, Indonesia.*

Design/methodology/approach – *A Randomized Controlled Trial (RCT) with a population of two elderly groups living in an earthquake-affected district was used in this study. The intervention comprised giving TF-CBT. There were three research instruments applied to determine the variables, namely, the Clinician-Administered PTSD Scale (CAPS-5), the Geriatric Depression Scale 15 (GDS 15) and the World Health Organization Quality of Life-BREF (WHOQOL-BREF). All instruments were adopted and translated using back translation to Bahasa Indonesia, which is appropriate at the suggestion of the WHO. To investigate the effect of the intervention, we used hierarchical linear models (HLM) with intent-to-treat analysis. The patent parameter effect was tested using the Wald test (t-test) with a confidence interval of 95 per cent.*

Findings – *The final analysis applied CAPS-5 and showed that there was a decrease in the PTSD of the respondents, which was down to only 8 (17.8 per cent) in the post-test. The same situation happened for the depression variable (2.8 per cent) after it was assessed using GDS-15C. The Quality of life (WHOQoL-BREF) variable was divided into Physical (50.7), Psychological (57.1), Social (53.6) and Environmental (45.7). These components show there to be a significant result in terms of improving the quality of life of the elderly victims of the earthquake. The finding highlights that applying TF-CBT in the elderly population can significantly drop post-traumatic stress disorder and depression level and enhanced quality of life.*

Social implications – *The intervention decreased the depression level and improved the quality of life of the elderly as found in the six- week follow-up. Longer training and integration with the structured local wisdom could be necessary to better address the mental health of the elderly affected by the earthquake. Moreover, strengthening the role of the family as the primary caregiver is required to improve the outcome.*

Originality/value – *This is the first study that has attempted to use TF-CBT as a method of treatment for the elderly to decrease their depression and to increase quality of life among the Indonesian elderly who have experienced an earthquake. This paper provides knowledge on the effectiveness of TF-CBT that can be used by therapists to treat depression problems suffered by the elderly in a post-disaster area.*

Keywords *Elderly, PTSD, quality of life, depression, randomized controlled trial, Trauma-Focused cognitive behavior therapy*

Paper type *Research paper*

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1. Introduction

Indonesia, the largest archipelago in the world, is one of the most vulnerable countries in terms of natural disasters. Over a period of three decades, natural disasters such as volcanic eruptions, earthquakes, floods, tsunamis, fires, landslides and drought has been

experienced (Hikichi *et al.*, 2016). The latest natural disaster that attracted worldwide attention was the 7.0 Richter scale earthquake on Lombok Island, West Nusa Tenggara, on 5th August 2018. The data recorded that a total of 460 people were confirmed dead, 7.733 people were injured and 417.529 people had moved to other places. Among the five districts of Lombok Island, North Lombok Regency was affected the most severely because its location was closest to the epicenter. As many as 178,122 people or 81.5 per cent of the total population, were evacuated; 396 people died and 12, 546 buildings were badly damaged, and the total loss reached 2.7 trillion IDR (Management ASEAN Coordinating Centre for Humanitarian Assistance on Disaster, 2018).

Not only did the earthquake affect the death of the population and physical damage, it can cause damage to the psychological condition and social life of victims, particularly the elderly (Jia *et al.*, 2010). According to the North Lombok Regency Statistics Agency projection data (2018), there were 17, 117 elderly living in the district in 2018. This number increased by almost 27 per cent of the population in 2010 (13.489 people) (BPS, 2018). The elderly have the potential to experience higher psychosocial distress compared to younger age groups (Lamoureux-Lamarche *et al.*, 2016). Moreover, the elderly are not sufficiently prepared to deal with natural disasters (Pietrzak *et al.*, 2012a). The disaster can cause post-traumatic stress disorder (PTSD) or psychiatric disorders, especially depression, which can reduce the quality of life of the elderly (Pietrzak *et al.*, 2012b; Chung *et al.*, 2016). Therefore, a certain effectiveness level of treatment is required to reduce the level of depression and improve the quality of life of the elderly who live in communities in the affected areas.

Cognitive behavior therapy (CBT) can be given to clients who have experienced a natural disaster event. The unpredictable nature of natural disasters can change a person's life and their way of thinking, leading to the emergence of negative thoughts. The anxiety experienced by clients after a disaster causes acute stress disorder (ASD), which has an impact on the client's thoughts and behavior. CBT is the first treatment being recommended to heal PTSD (Akhtar *et al.*, 2019). TF-CBT is known as an evidence-based intervention created and developed by Judith A. Cohen, Anthony P. Mannarino and Esther Deblinger in the late 1990s (Ramirez de Arellano *et al.*, 2014; Joiner and Buttell, 2018). The proposed TF-CBT program is used to overcome the distress and maladaptive cognition associated with traumatic events and it was first applied to children and adolescents (Palacio *et al.*, 2012). However, the effectiveness of TF-CBT for elderly clients in post-disaster areas is being questioned. This study aims to determine the effect of TF-CBT on the level of depression and the quality of life of the elderly living in post-disaster areas such as in the districts of North Lombok in Indonesia.

2. Methods

2.1 Study design and participants

A randomized controlled trial was used in this study. The subjects comprised the elderly living in communities in North Lombok Regency (NTB) determined by the following inclusion criteria: elderly people >60 years old living in the post-earthquake Lombok area experiencing PTSD based on the Clinician-Administered PTSD Scale (CAPS-5), GDS ≥5 and MMSE ≥24. The exclusion criteria were the elderly who had severe mental disorders. The sample size was calculated using a power calculation and it obtained a minimum sample size of 70 respondents for each group (power = 0.80; alpha = 0.05; two sides). Considering the 20 per cent attrition, the required sample size was 90 elderly divided into 45 respondents in the intervention group and 45 respondents in the treatment group. The participants were randomized using computerized randomization (Microsoft Excel) by researchers who did not know the participants personally.

2.2 Data collections

The data collection was started on July 8th to 11th 2019, a year after earthquake, and the study finished on 18th August 2019. The independent variable was TF-CBT. There were three dependent variables, namely, the PTSD diagnosis, the level of depression and quality of life. TF-CBT is done by digging back into the memory of the traumas experienced during events such as disasters. The components of TF-CBT include psychoeducation, relaxation, social problem solving, cognitive restructuring, real life exposure and the development of the trauma narrative (TFCBT MUSC, 2019). The measurement of the depression level was performed using the Geriatric Depression Scale 15 (GDS 15); 10 of the 15 items showed depression if answered positively while others (questions number 1, 5, 7, 11, and 13) showed depression if answered negatively. Depending on age, education and complaint, a value of 0-4 is normal; 5-8 shows mild depression; 9-11 shows moderate depression and 12-15 shows severe depression. In addition, the assessment of quality of life was determined using the WHOQoL-BREF instrument comprising four components, namely, physical, psychological, social and environmental (Polak *et al.*, 2012).

During the data collection, the elderly who agreed to be respondents were interviewed based on the CAPS-5 questionnaires, GDS 15 and MMSE. The elderly people who indicated positive for experiencing PTSD and other indicators were offered therapy treatment. After obtaining the specified number of elderly to make up the sample, randomization was performed at the Faculty of Nursing, Universitas Airlangga. The next stage was a random assignment to determine the control group and the intervention group.

The elderly were divided into two groups. Five trained therapists were involved to deliver the TF-CBT sessions. The therapists gave the pre-test with CAPS-5, GDS 15 and WHOQOL-BREF and conducted TF-CBT sessions for an hour twice a week for six weeks. At the end of the 6th session, the nurse conducted a post-test with the same instrument that had been adapted and translated into Indonesian. The control group was only pre-tested in the first week and the post-test was done in the sixth week. After the post-test, the control group got the therapy exactly as was obtained by the treatment group.

2.3 Data analysis

This study used hierarchical linear models (HLM) with intent-to-treat analysis to investigate the impact of the interventions. All analyzes were performed using SPSS version 2.1 (SPSS. Inc., Chicago, IL). HLM applied a multilevel data structure while the effect of the patent parameters was tested using the Wald test (t-test) with a 95 per cent CI.

2.4 Ethical considerations

This study was considered to be ethically sound by the Health Research Ethics Committee of the Faculty of Nursing Universitas Airlangga (1371-KEPK).

3. Results

3.1 Demographic characteristics

Based on the demographic data, there were 90 total respondents divided into 45 respondents for each group. Most of the respondents in both groups were aged 60-80 years old; 91.1 per cent in the intervention group and 88.9 per cent in the control group. The majority of the respondents were women with a percentage of 71.1 per cent for the intervention group and 77.8 per cent for the control group. In the intervention group, the language that was mostly used by the respondents was Bahasa Indonesian (57.8 per cent); however, in the control group, some of the respondents used Indonesian (53.3 per cent) and the rest were in local languages (46.7 per cent).

Nearly two-thirds of respondents in both the intervention (68.9 per cent) and control groups (82.3 per cent) had never received education before. Work routines before and after the earthquake tended to increase; they were previously recorded at 31.1 per cent for the intervention group and 33.3 per cent for the control group and then increased to 73.3 and 82.2 per cent. Being married in the intervention group was greater (44.4 per cent) than in the control group (33.3 per cent) (Table I).

3.2 Statistical results

The final Ward test (t-test) showed a rate of 8 (17.8 per cent) in the intervention group where it showed as a decrease in PTSD. As for the level of depression, after the intervention, the decline reached 3.8, whereas before the intervention it was 8.8. This is seen as a contrast compared to the control group, which only decreased by 0.1. The increase in physical activity in the respondents after TF-CBT was 23.2 (from 37.5 to 50.7) with a mean difference between the TF-CBT and control groups of 11.6 (from 6.2 to 17.0). A significant increase occurred in the psychological condition of the TF-CBT group respondents reaching 16.8. The social component showed a number after post-therapy of 53.6 and the environmental component showed an increase of 15.3. Furthermore, in the control group, the increase was only 1 in each component of quality of life (Table II).

4. Discussion

The results of the statistical analysis in this study showed that the application of TF-CBT in the elderly who were victims of the earthquake had a significant effect in terms of reducing PTSD levels. Many of the previous studies are in line with the results of this study and they stated that

Table I All of the variables measured according to the participating elderly

Variables	*Intervention* (n = 45) n	*(%)*	*Control* (n = 45) n	*(%)*
Age				
Elderly (60-80)	41	91.1	39	88.9
Oldest Old (>80)	4	8.9	6	11.1
Mean (±SD)	70.8 (±8.7)		71.76 (±8.5)	
Gender				
Male	13	28.9	10	22.2
Female	32	71.1	35	77.8
Speak Indonesian Language				
Yes	26	57.8	24	53.3
No; only local language	19	42.2	21	46.7
Education				
Uneducated	31	68.9	37	82.2
Formally Educated	14	31.1	8	17.8
Work Before Disaster				
Yes	14	31.1	15	33.3
No	31	68.9	30	66.7
Work After Disaster				
Yes	33	73.3	37	82.2
No	12	26.7	8	17.8
Marriage				
Married	20	44.4	15	33.3
Not Married or Widowed	25	55.6	30	66.7

Table II Effect of Trauma-Focused cognitive behavior therapy on depression and quality of life of elderly according to the Wald test (t-test)

Variables	*TF-CBT*		*Control*		*Mean Diff. (95% CI)*	p-*value*
Primary Outcome[a]						
PTSD (CAPS-5)	n	(%)	n	(%)		
Pre	45	(100)	45	(100)	–	1.000
Post	8	(17.8)	40	(88.9)	–	< 0.001
Secondary Outcomes[b]						
	Mean	(SD)	Mean	(SD)		
Depression (GDS-15)[c]						
Pre	8.8	(2.9)	9.2	(2.4)	−0.4 (−1.5 to 0.7)	0.479
Post	3.8	(2.8)	9.1	(2.6)	−5.3 (−6.4 to −4.1)	< 0.001
Quality of Life (WHOQoL-BREF)						
Physical						
Pre	37.5	(10.3)	37.96	(9.0)	−0.5 (−4.5 to 3.5)	0.819
Post	50.7	(15.5)	39.1	(9.5)	11.6 (6.2 to 17.0)	< 0.001
Psychological						
Pre	40.3	(10.5)	44.6	(11.0)	−4.2 (−8.8 to 0.3)	0.065
Post	57.1	(9.6)	45.0	(11.5)	12.1 (7.6 to 16.5)	< 0.001
Social						
Pre	40.0	(14.1)	42.5	(14.0)	−2.5 (−8.4 to 3.4)	0.395
Post	53.6	(13.5)	42.5	(15.8)	11.1 (5.0 to 17.3)	0.001
Environmental						
Pre	30.4	(11.4)	33.0	(8.3)	−2.5 (−6.7 to 1.7)	0.240
Post	45.7	(12.5)	36.5	(9.5)	9.2 (4.5 to 13.9)	< 0.001

Notes: [a]Fischer's exact test; [b]Independent t-test; [c]0-4 (normal); 5-8 (mild depression); 9-11 (moderate depression); 12-15 (severe depression)

TF-CBT is an effective therapy for reducing PTSD in those who have experienced trauma (Bianchini *et al.*, 2013; McMullen *et al.*, 2013; O'Callaghan *et al.*, 2013; Smith *et al.*, 2013; Jensen *et al.*, 2014; Goldbeck *et al.*, 2016; Hayes *et al.*, 2017; Joiner and Buttell, 2018; Rudd *et al.*, 2019). The PTSD reduction in respondents can be related to the essence of TF-CBT, which is a form of the most therapeutic approach to assist respondents in dealing with problems occurring because of the trauma experienced. In this therapy, the respondents were directed to focus on their beliefs, thoughts and emotions related to the feelings of themselves and others as well as any changes in philosophy and the meaning of life (Farnia *et al.*, 2018). This diversion supports research, which states that if negative thoughts are reduced, and then the post-traumatic growth process will be facilitated (Shigemoto *et al.*, 2017).

In the depression variable, the same result showed a significant level of decline. In line with these results, Gilboa-Schechtman et al confirmed that a prolonged exposure to TF-CBT reduced the PTSD symptoms (P <0.05) and depression symptoms (Smith *et al.*, 2013). However, similar studies have mentioned the same thing, namely, that those who get TF-CBT showed an improvement in conditions such as PTSD, depression, behavioral problems and general mental health symptoms (Scheeringa *et al.*, 2011; O'Callaghan *et al.*, 2013; Jensen *et al.*, 2014; Cohen *et al.*, 2015; Valerie Forman-Hoffman *et al.*, 2018; Rudd *et al.*, 2019). The condition of reducing depression after TF-CBT is influenced by the therapeutic therapy that is a part of the strategy of TF-CBT (Stephen Lenz and Michelle Hollenbaugh, 2016; Keen *et al.*, 2017; Farnia *et al.*, 2018). Therapeutic therapy can help to improve the condition of patients with psychiatric disorders, anxiety and depression to allow them to be aware of their thoughts when in the condition of being under pressure and as a part of identifying and modifying

dysfunctional thinking (Chand and Grossberg, 2013; Keen *et al.*, 2017). In addition, behavioral techniques are part of TF-CBT, which can bring in functional changes in behavior, regulate emotions and help the cognitive rearrangement process, thus leading to the improvement of conditions over a long-lasting period (Chand and Grossberg, 2013). A study states that TF-CBT is a treatment where there is a promised improvement in PTSD symptoms and recurrent depression while being a form of therapy that is cost-effective for patients (Stephen Lenz and Michelle Hollenbaugh, 2016; Rudd *et al.*, 2019).

This study provides evidence that there was a tendency for improvement in the quality of life of respondents after the TF-CBT intervention in all four aspects. The results of this study are the same as other studies, namely, where there is a significant increase in PTSD and quality of life using each CBT strategy, including psychoeducation, imaginal exposure and *in vivo* exposure (Sophie *et al.*, 2017). The third focus was on the research that had an impact on improving the quality of life. For example, psychoeducation will lead the respondents to recognize their true state to reduce their anxiety. Imaginal exposure and *in vivo* exposure is a form of overcoming anxiety that is caused by avoidance or denial behavior. This study used the same aspects as additional relaxation, social problem solving, cognitive restructuring, real life exposure and the development of narrative trauma. A study conducted by Golbeck *et al.* yielded different results, namely, that the improvement in quality of life was no greater in the intervention group. This might be attributed to a limited sensitivity to change (Goldbeck *et al.*, 2016). The confirmation of improved quality of life has been explained in similar studies using CBT in young people (Bianchini *et al.*, 2013).

Based on the age factor, this is a new discovery for TF-CBT in the elderly as previously TF-CBT was designed and widely used for therapy accessed by children and adolescents (Smith *et al.*, 2013; Stikkelbroek *et al.*, 2013; Ramirez de Arellano *et al.*, 2014; Konanur *et al.*, 2015; Yen and Hsu, 2016; Hayes *et al.*, 2017; Westerman, Cobham and McDermott, 2017; Joiner and Buttell, 2018; Mayorga and Khan, 2018; Rudd *et al.*, 2019). The mechanism of applied TF-CBT in the elderly was in accordance with the method used in the studies that have been performed on children (without any modification) that were focused on a cognitive exploration of trauma, stress management and an improvement in quality of life after trauma (Yen and Hsu, 2016).

Based on previous studies, the number of therapy sessions in TF-CBT generally amount to 12-18 sessions. The need for therapy sessions is influenced by the requirements and abilities of each individual (Ramirez de Arellano *et al.*, 2014; Joiner and Buttell, 2018). This study used totaling 12 sessions during the study period. With short-term therapy, the number of respondents who were still diagnosed with PTSD in the post-test was 8. This figure shows the effectiveness of TF-CBT in curing PTSD in the elderly who were victims of the earthquake disaster. A study comparing 12-15 sessions of prolonged exposure and 15-18 sessions of psychodynamic therapy argued that the sessions have similarities in terms of reducing depression and PTSD. Those who start with prolonged exposure are more effective at reducing their depression symptoms (Smith *et al.*, 2013). In other words, regardless of how many sessions the respondents had, it can still have a good effect on reducing depression and PTSD.

Limitation: This study only tested the effectiveness of TF-CBT in general among elderly respondents; it did not multiply the effect of TF-CBT based on the sexuality of elderly (male and female). It is suggested to conduct further research to identify the effect of TF-CBT based on sexuality and other demographic factors such as the environment, marital status and family support. This is because these other factors, as mentioned previously, can have a role in the success of therapy. Because of the nature of the intervention, this study cannot blind both the therapists and participants, which may lead to an ascertainment and response bias.

5. Conclusion

The intervention decreased the depression level and improved the quality of life of the elderly in the three month follow-up. The modification of length of the training and the integration with the structured local wisdom could be necessary to address mental health among the elderly affected by earthquakes. Moreover, strengthening the role of the family as the primary caregiver is needed to improve the outcome. Local public health centers and stakeholders should be exposed to the issue of mental health among the elderly to increase their awareness.

References

Akhtar, E., Ballew, A.T., Orr, W.N., Mayorga, A. and Khan, T.W. (2019), "The prevalence of post-traumatic stress disorder symptoms in chronic pain patients in a tertiary care setting: a cross-sectional study", *Psychosomatics*, Vol. 1.

Bianchini, V., Roncone, R., Tomassini, A., Necozione, S., Cifone, M.G., Casacchia, M. and Pollice, R. (2013), "Cognitive behavioral therapy for young people after l'Aquila earthquake", *Clinical Practice & Epidemiology in Mental Health*, Vol. 9 No. 1, pp. 238-242.

Bps, L.U. (2018), "Kabupaten lombok utara dalam angka 2018", Lombok.

Chand, S.P. and Grossberg, G.T. (2013), "How to adapt cognitive-behavioral therapy for older adults", *Current Psychiatry*, Vol. 12 No. 3, pp. 10-14.

Chung, M.C., Jones, R.C., Harding, S.A. and Campbell, J. (2016), "Posttraumatic stress disorder among older patients with chronic obstructive pulmonary disease", *Psychiatric Quarterly*, Vol. 87 No. 4, doi: 10.1007/s11126-015-9413-z.

Cohen, J.A., Mannarino, A.P., Jankowski, K., Rosenberg, S., Kodya, S. and Wolford, G.L. (2015), "A randomized implementation study of trauma-focused cognitive behavioral therapy for adjudicated teens in residential treatment facilities", *Child Maltreatment*, Vol. 1.

Farnia, V., Naami, A., Zargar, Y., Davoodi, I., Salemi, S., Tatari, F., Kazemi, A., Basanj, B., Jouybari, T.A. and Alikhani, M. (2018), "Comparison of trauma-focused cognitive behavioral therapy and theory of mind: improvement of posttraumatic growth and emotion regulation strategies", *Journal of Education and Health Promotion*, Vol. 58.

Goldbeck, L., Muche, R., Sachser, C., Tutus, D. and Rosner, R. (2016), "Effectiveness of trauma-focused cognitive behavioral therapy for children and adolescents: a randomized controlled trial in eight German mental health clinics", *Psychotherapy and Psychosomatics*, Vol. 85 No. 3, pp. 159-170.

Hayes, A.M., Yasinski, C., Grasso, D., Ready, C.B., Alpert, E., McCauley, T., Webb, C. and Deblinger, E. (2017), "Constructive and unproductive processing of traumatic experiences in trauma-focused cognitive-behavioral therapy for youth", *Behavior Therapy*, Vol. 48 No. 2.

Hikichi, H., Aida, J., Tsuboya, T. and Kawachi, I. (2016), "Can community social cohesion prevent posttraumatic stress disorder in the aftermath of a disaster? A natural experiment from the 2011 Tohoku earthquake and tsunami", *American Journal of Epidemiology*, Vol. 183 No. 10, pp. 902-910.

Jensen, T.K., Holt, T., Ormhaug, S.M., Egeland, K., Granly, L., Hoaas, L.C., Hukkelberg, S.S., Indregard, T., Stormyren, S.D. and Wentzel-Larsen, T. (2014), "A randomized effectiveness study comparing trauma-focused cognitive behavioral therapy with therapy as usual for youth", *Journal of Clinical Child and Adolescent Psychology*, Vol. 43, doi: 10.1080/15374416.2013.822307.

Jia, Z., Tian, W., Liu, W., Cao, Y., Yan, J. and Shun, Z. (2010),. "Are the elderly more vulnerable to psychological impact of natural disaster? A population-based survey of adult survivors of the 2008 Sichuan earthquake".

Joiner, V.C. and Buttell, F.P. (2018), "Investigating the usefulness of trauma-focused cognitive behavioral therapy in adolescent residential care", *Journal of Evidence-Informed Social Work*, Vol. 15 No. 4, pp. 457-472.

Keen, N., Hunter, E.C.M. and Peters, E. (2017), "Integrated trauma-focused cognitive-behavioural therapy for post-traumatic stress and psychotic symptoms: a case-series study using imaginal reprocessing strategies", *Frontiers in Psychiatry*, Vol. 8, pp. 1-17.

Konanur, S., Muller, R.T., Cinamon, J.S., Thornback, K. and Zorzella, K.P. (2015), "Effectiveness of trauma-focused cognitive behavioral therapy in a community-based program", *Child Abuse & Neglect*, Vol. 50, pp. 159-170.

Lamoureux-Lamarche, C., Vasiliadis, H.-M., Préville, M. and Berbiche, D. (2016), "Post-traumatic stress syndrome in a large sample of older adults: determinants and quality of life", *Aging & Mental Health*, Vol. 20 No. 4, pp. 401-406.

McMullen, J., O'Callaghan, P., Shannon, C., Black, A. and Eakin, J. (2013), "Group trauma-focused cognitive-behavioural therapy with former child soldiers and other war-affected boys in the DR Congo: a randomised controlled trial", *Journal of Child Psychology and Psychiatry and Psychiatry*, Vol. 54.

Management ASEAN Coordinating Centre for Humanitarian Assistance on Disaster (2018), "Situation update no. 8 the 2018 lombok earthquake Indonesia, M 6.4 (29 July), M 7.0 (5 August), M 6.2 (9 August), M 6.5 (19 August), M 6.9 (19 August) Monday, 28 August 2018, 08:00 hrs (UTC+7)", *Jakarta*.

Mayorga, A. and Khan, T.W. (2018), "PT US cr", *Psychosomatics*, Elsevier, New York.

O'Callaghan, P., McMullen, J., Shannon, C., Rafferty, H. and Black, A. (2013), "A randomized controlled trial of trauma-focused cognitive behavioral therapy for sexually exploited, war-affected congolese girls", *Journal of the American Academy of Child and Adolescent Psychiatry*, Vol. 52.

Palacio, C., Krikorian, A., Saldarriaga, N. and Vargas, J.J. (2012), "Posttraumatic stress disorder and chronic pain", *Techniques in Regional Anesthesia and Pain Management*, Vol. 49.

Pietrzak, R.H., *et al.* (2012a), "Psychiatric comorbidity of full and partial posttraumatic stress disorder among older adults in the United States: results from wave 2 of the national epidemiologic survey on alcohol and related conditions", *The American Journal of Geriatric Psychiatry*, Vol. 20 No. 5, pp. 380-390.

Pietrzak, R.H., *et al.* (2012b), "Posttraumatic stress disorder, depression, and perceived needs for psychological care in older persons affected by hurricane ike", *Journal of Affective Disorders*, Vol. 138 Nos 1/2.

Polak, A.R., Witteveen, A.B., Visser, R.S., Opmeer, B.C., Vulink, N., Figee, M., Denys, D. and Olff, M. (2012), "Comparison of the effectiveness of trauma-focused cognitive behavioral therapy and paroxetine treatment in PTSD patients: design of a randomized controlled trial", *BMC Psychiatry*, Vol. 12 No. 1, p. 1.

Ramirez de Arellano, M.A., Lyman, D.R., Jobe-Shields, L., George, P., Dougherty, R.H., Daniels, A.S., Ghose, S.S., Huang, L. and Delphin-Rittmon, M.E. (2014), "Trauma focused CBT: assessing the evidence", *Psychiatric Services*, Vol. 65 No. 5, pp. 591-602, doi: 10.1176/appi.ps.201300255.Trauma-Focused.

Rudd, B.N., Last, B.S., Gregor, C., Jackson, K., Berkowitz, S., Zinny, A., Kratz, H.E., Cliggitt, L., Adams, D.R., Walsh, L.M. and Beidas, R.S. (2019), "Benchmarking treatment effectiveness of community-delivered trauma-focused cognitive behavioral therapy", *American Journal of Community Psychology*, Vol. 64 Nos 3/4, pp. 1-13.

Scheeringa, M.S., Weems, C.F., Cohen, J.A., Amaya-Jackson, L. and Guthrie, D. (2011), "Trauma-focused cognitive-behavioral therapy for posttraumatic stress disorder in three-through six year-old children: a randomized clinical trial", *Journal of Child Psychology and Psychiatry and Psychiatry*, Vol. 52.

Shigemoto, Y., Low, B., Borowa, D. and Robitschek, C. (2017), "Function of personal growth initiative on posttraumatic growth, posttraumatic stress, and depression over and above adaptive and maladaptive rumination", *Journal of Clinical Psychology*, Vol. 73 No. 9.

Smith, P., Perrin, S., Dalgleish, T., Meiser-Stedman, R. and Clark, D.M. (2013), "Treatment of posttraumatic stress disorder in children and adolescents", *Current Opinion in Psychiatry*, Vol. 26 No. 1, pp. 66-72.

Sophie, L., Dominic, B.P., Stéphane, G., Geneviève, B. and André, M. (2017), "Evolution of posttraumatic stress symptoms and quality of life throughout a cognitive behavioral treatment for workplace trauma victims", *Journal of Mental Disorders and Treatment*, Vol. 1.

Stephen Lenz, A. and Michelle Hollenbaugh, K. (2016), "Meta-analysis of trauma-focused cognitive behavioral therapy for treating PTSD and co-occurring depression among children and adolescents", *Counseling Outcome Research and Evaluation*, Vol. 6 No. 1, pp. 18-32.

Stikkelbroek, Y., Bodden, D.H., Deković, M. and van Baar, A.L. (2013), "Effectiveness and cost effectiveness of cognitive behavioral therapy (CBT) in clinically depressed adolescents: individual CBT versus treatment as usual (TAU)", *BMC Psychiatry*, Vol. 13 No. 1.

Valerie Forman-Hoffman, M.P.H., Middleton, J.C. Feltner, C. Gaynes, B.N. Weber, R.P. Bann, C. Viswanathan, C. Lohr, N.K. Baker, C. and Green, J. (2018), *Psychological and Pharmacological Treatments for Adults with Posttraumatic Stress Disorder: A Systematic Review Update*, RTI International–University of NC at Chapel Hill Evidence-based Practice Center, Chapel Hill. 10.23970/AHRQEPCCER207.

Westerman, N.K., Cobham, V.E. and McDermott, B. (2017), "Trauma-focused cognitive behavior therapy: narratives of children and adolescents", *Qualitative Health Research*, Vol. 27 No. 2, pp. 226-235.

Yen, C. and Hsu, C. (2016), "Comprehensive guide to post-traumatic stress disorders", *Comprehensive Guide to Post-Traumatic Stress Disorders*, Vol. 1, pp. 1401-1419, doi: 10.1007/978-3-319-08359-9.

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